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X X E N O P H O B I A



Lajos Kossuth, Hungarian patriot and hero of the 1848 fight for independence

THERE are many reasons why you may have an extreme dislike for other people; they may be cruel or selfish or mean; perhaps if they are better off than you, you may be jealous of them; if you are some sort of fanatic you may hate somebody because he belongs to a different religion or supports a different political party. If you strongly dislike people purely because they come from a different country you experience the emotion called *xenophobia*. The word is derived from the Greek *xenos*, a foreigner, and *phobia*, hatred or fear. The

word can mean the violent dislike of people just because they are foreign. But xenophobia can be applied to whole nations and races. It is more than just a feeling of rivalry felt by one nation for another. It is enmity, hatred, or fear of a nation for foreigners: an extreme attitude which can see no good at all in foreign people.

Now xenophobia nearly always takes the form of hatred of a particular foreign country or group of countries, but this hatred of one country is only a symptom of a general anti-foreign feeling. Xenophobia is based on nationalism or racialism. It arises in the awareness of a people that they want to be masters of their own destiny without interference from outside. The hatred focuses on a particular foreign people because it is they who have come into conflict with these national or racial feelings. Xenophobia is important today because there is a growing feeling of nationalism throughout the world. Among the ways in which the feeling of xenophobia can be engendered are: oppression or exploitation; imperialism; and the doctrine of racial superiority. We will look at some examples under these broad headings.

Oppression and exploitation

Ireland. A typical example of xenophobia aroused by a sense of oppression and exploitation was that of the Irish for the British. It was the British oppression of the Irish way of life that gave the Irish the awareness that they were very different from the rest of Great Britain – that their governors were, in fact, foreigners. Thus the Irish desire for independence inevitably resulted in opposition to foreign oppression – that is, to the British, who for so long refused to allow Irish national aspirations. There were many revolutions against the British, but it was not until 1921 that a revolt, led by the IRA (Irish Republican Army), forced the British to grant 26 Irish counties virtual independence. The continued resistance of Britain to the demands of Irish nationalism had resulted in extreme xenophobia focused on the British in

nearly all sections of the Irish population. **Hungary.** Another example of xenophobia stimulated by oppression is that of the Hungarians. The Hungarians have a considerable national pride and have never forgotten their 19th-century leader, Kossuth, whose cry ‘Hungary for the Hungarians’ almost brought a dramatic ending to Austrian domination. In 1956 Hungarian hatred of Russian domination broke into violent revolt. Women and children fought in the streets; even bricks and stones were hurled at the relentless Russian tanks. The world watched, helpless, as the revolt was crushed.

Imperialism

The Indian Mutiny. The Indian Mutiny of 1857 was not against oppression and exploitation, for India benefited from British rule; it was an outburst of national feeling against rule by foreigners. At this time India was still governed by the East India Company. Lord Dalhousie, the Company’s able governor-general in the years immediately preceding the mutiny, had introduced revolutionary changes in Indian education, government, and communications. But he had failed to take into account the strong body of Indian feeling which received these improvements as a calculated attack on their age-old customs.

Two particularly insensitive British moves finally brought the Indians’ xenophobia to a head. The General Service Enlistment Act of 1856, which made army recruits liable to overseas service and so to mixing with foreigners, was a thoughtless breach of caste. The cartridge affair was even worse; a new type of cartridge was introduced which was greased with fat from cows (sacred to Hindus) or from pigs (impure to Muslims), and the soldiers had to bite off the end before it could be used. A large proportion of the Indian army revolted, beginning with the Bengal division. The mutiny was only suppressed after a bitter struggle, and resentment lingered on in India for some time.

Suez. In recent years xenophobia has reached its extremes in the Middle East. The people there bitterly resent the foreign interference they have endured for so long. They once looked to the Soviet Union to



A view of the great plain of Mongolia – Mongolia is about ten times the size of England and Wales



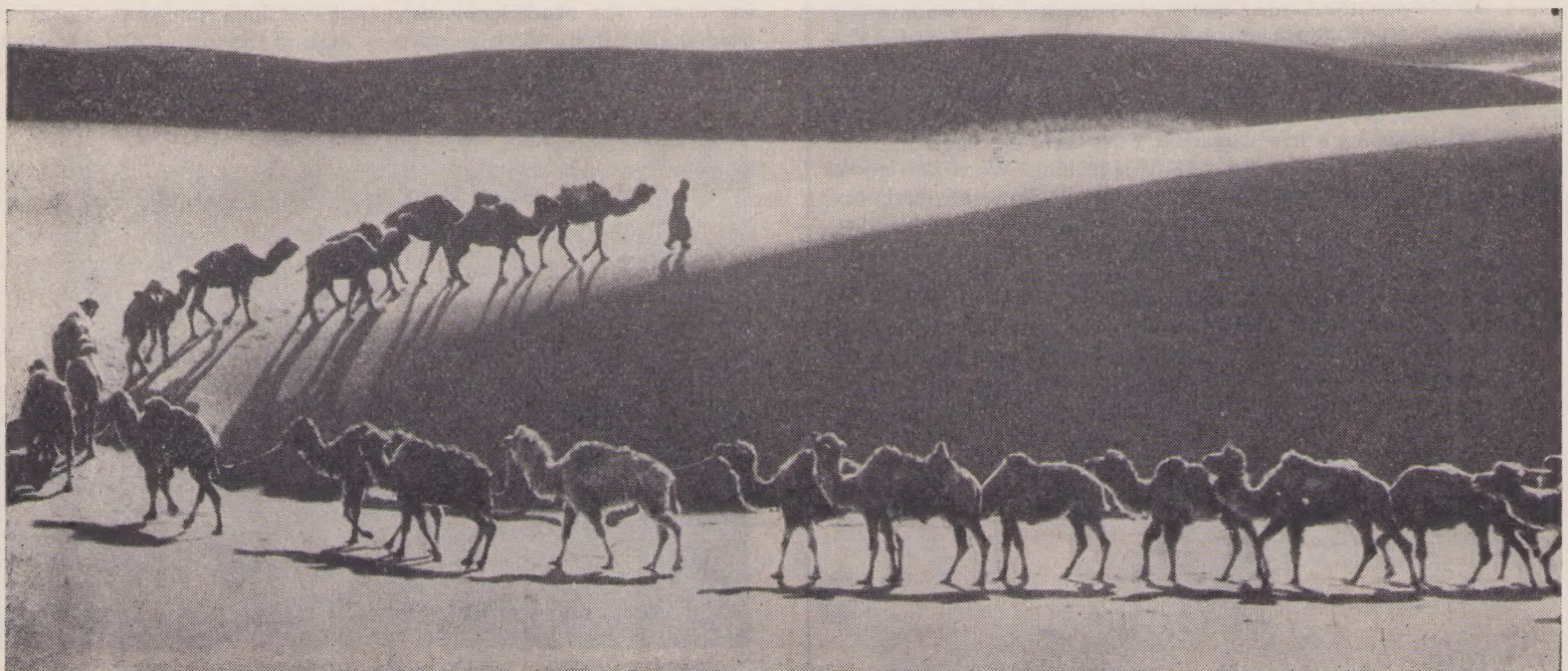
MONGOLIA

Once the Mongolian state was the most powerful in the world; it was a mighty empire, which in the 13th century, under Genghis Khan, stretched from China to Europe. Today, the Mongolian People's Republic is one of the most remote and little-known states in the world. Its inhabitants, descendants of the all-conquering Mongol warriors, are mostly primitive nomads.

[continued on page 2]



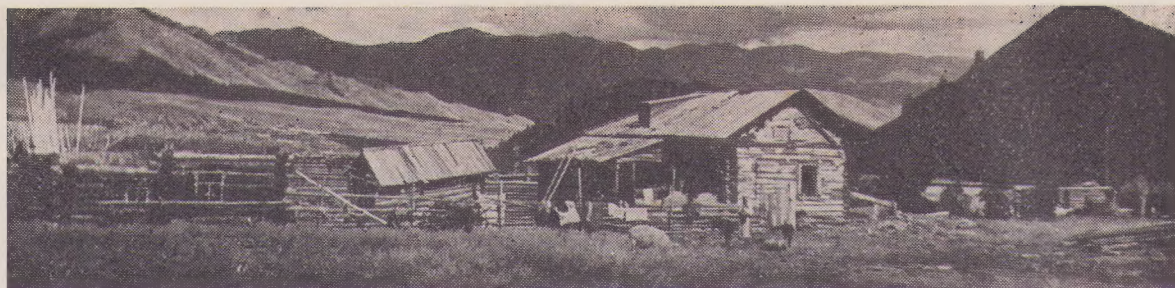
Above (right and left): Mongolians in their traditional headdress. Below: a camel caravan crossing the Gobi desert. There is a fanciful legend that this desert was created by the trampling of the cavalry of Genghis Khan



MONGOLIA

continued

A small settlement in the north of Mongolia. The majority of Mongolians are nomads, but some have settled down to cultivate the land, despite the traditional belief that by breaking the soil they are disturbing its spirits



THE land of the Mongols has two traditional divisions: Inner Mongolia, now part of Communist China, and Outer Mongolia, now a Communist state known as the Mongolian People's Republic. This republic lies north of China and south of eastern Siberia. It has a population of just under one million – about a third of that of Ireland – but is about ten times the size of England and Wales. Much of the Mongolian Republic consists

of a great plain, about three thousand feet above sea level, stretching as far as the eye can see – a vast empty region with no proper roads, inhabited by a few wandering herdsmen.

To the south is the Gobi desert, created, goes the legend, by the trampling of Genghis Khan's cavalry.

Accustomed to these wide open spaces, the Mongolians have become a nation of horsemen. But

camels, too, are used for moving over the great Mongolian plain. The nomadic Mongolians make their living from the sheep, goats, and cattle which accompany them on their wanderings. They have no homes but *gers* or round tents.

In 1921 a young cavalryman, Sukhe Bator, overthrew the government of Outer Mongolia, which then became a Communist republic. A year later Sukhe Bator was poisoned. But the Communist government remained, and Mongolia began to take its first halting steps along the road to progress.

The population of the capital, Ulan Bator, is now 180,000. It has a number of up-to-date factories, a university, an Academy of Science, a modern hospital, a sports stadium, and even a Grand Hotel. Coal is being mined near Ulan Bator, and in the Gobi desert oil has been found.



Little Mongolian girls like this may spend their lives wandering with their families across the great plain of Mongolia



A woman weaver at work in Ulan Bator



Letter from the Editor-in-Chief

37 HERTFORD STREET, LONDON, W.1.

YOU might be interested to know that *Knowledge* has just been launched in the United States of America. I am sending this telegram to its Editor: 'The best of luck to American *Knowledge*' – Editor-in-Chief, Editor, Staff and Readers of *Knowledge*, London. I am sure that you will have no objection to my sending this message on your behalf. It is a very exciting and often nerve-racking business launching a new magazine. First there are the months of preparation. Then comes the day of launching. When you go to work you see your magazine prominently displayed on the book-stalls. On the first day the telephone never stops ringing: wholesalers wanting more copies, people offering their services as writers, or just ringing up to have a chat. The letters pour in. They must all be carefully read and answered, so the staff have to stay up late.

Not for about two days do you know whether the new magazine has been a success or a failure. You can work this out by analysing what percentage certain newsagents have sold of the copies which they have received. But it takes up to two or three weeks to get the overall picture.

To change the subject – a reminder to readers of *Blue Knowledge*. This week you begin Volume 4 (Nos. 37–48). See page 4 of *Knowledge News* for announcements about binders, and the index for Volume 3.

John Chancellor

The negdels

But the Mongolian economy is still based on livestock. There are roughly 20 goats and sheep per head of the population. The nomads responsible for this vast animal population have become partially Communised. They must now belong to a co-operative or *negdel*. Much of their stock is owned in common with the other members of the *negdel*, but a certain amount of private ownership is allowed. The *negdel* provides a headquarters from which its members are administered, and in which they can receive an elementary edu-

cation and also medical attention.

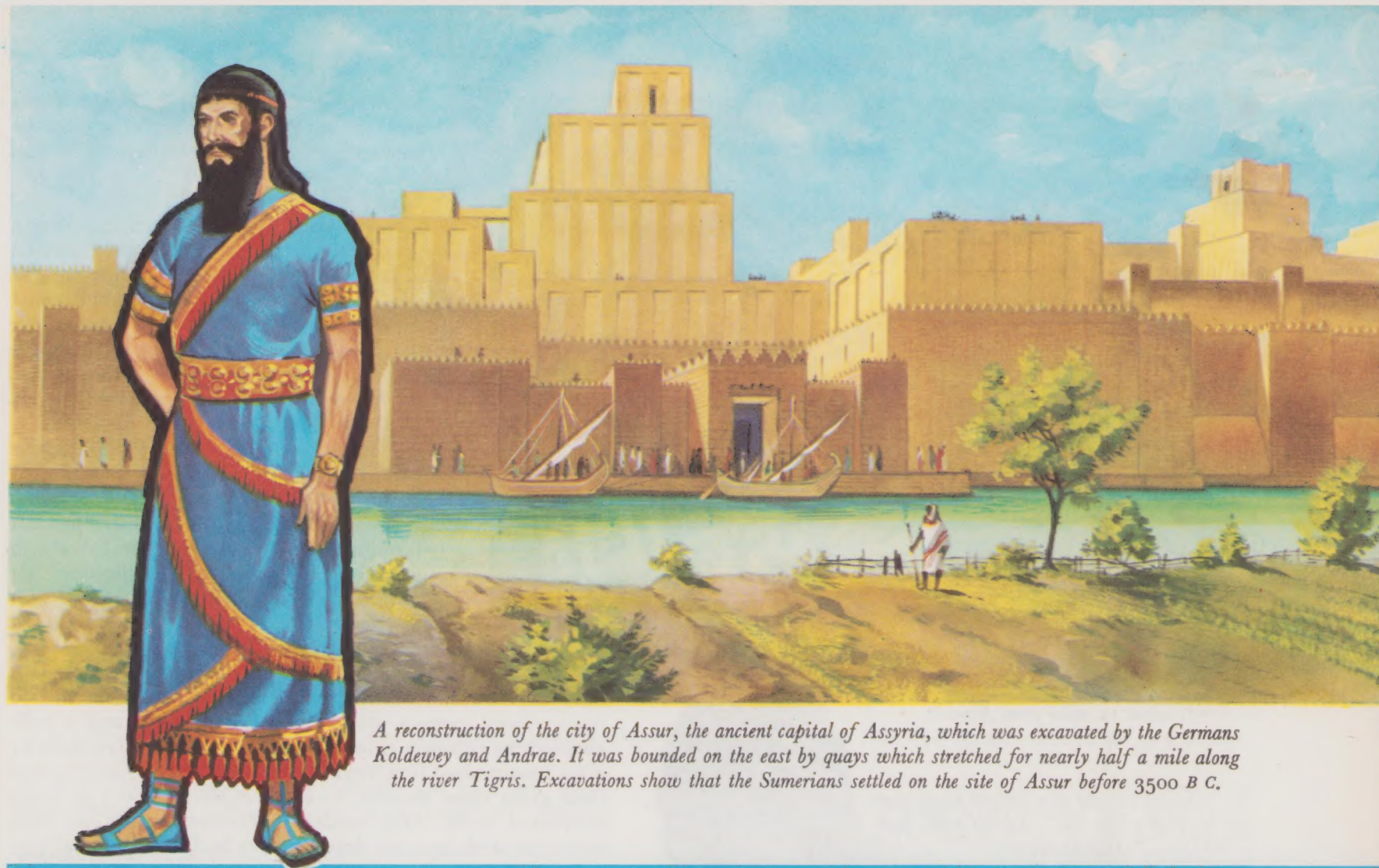
Since 1921 the Mongolians have begun to cultivate their land for the first time. For centuries they had refused to break the soil for fear that this would anger its spirits. However, this superstition has been overcome, and today there are over 30 collective farms.

In 1961 Mongolia joined the United Nations, and this, together with her tactical position between the Soviet Union and China, has focused world attention on her. Although the sympathies of the Mongolian government are with the Soviet Union in her clash with China, Mongolia has tried to be as correct as possible in her relations with her two neighbours, for she receives aid from both.

But China, which for a long time controlled Mongolia, still has her eye on her former possession, and this unimportant republic at the ends of the earth could one day be the scene of a trial of strength between the two Communist giants.



Mongolia is a Communist country, but old religious customs die hard. Here priests are about to perform a devil dance



A reconstruction of the city of Assur, the ancient capital of Assyria, which was excavated by the Germans Koldewey and Andrae. It was bounded on the east by quays which stretched for nearly half a mile along the river Tigris. Excavations show that the Sumerians settled on the site of Assur before 3500 B C.

ASSYRIAN CIVILISATION

IN the early 19th century little was known about the fabulous civilisations of Mesopotamia. People knew, of course, that long before the Greek and Roman empires – even before the pyramids were built in Egypt – a great civilisation had been centred on the rivers Tigris and Euphrates (see page 2241). But no doubt as they looked at that region as it then was, a desolate, lawless outpost of the corrupt and feeble Turkish empire, they found it hard to believe that this land had ever seen the gorgeous palaces and cities, magnificent libraries, and high degree of culture associated with the names of Babylonia, Sumer, and Assyria.

Then, as if the sun had risen on a black night, a series of expeditions to northern Mesopotamia suddenly laid bare the glories of the ancient Assyrian empire. The treasures of another world were revealed for posterity. The men who made these immortal discoveries were the Frenchmen Paul Botta, the Englishman Henry Layard, and the Germans Koldewey and Andrae.

The search begins

Paul Emile Botta was the French Consul at Mosul in northern Mesopotamia. He was determined to uncover what, if anything, was left of the ancient Assyrian civilisation. In particular he wanted to find the great Assyrian capital Nineveh which, according to tradition, was buried under great mounds of earth just outside Mosul.

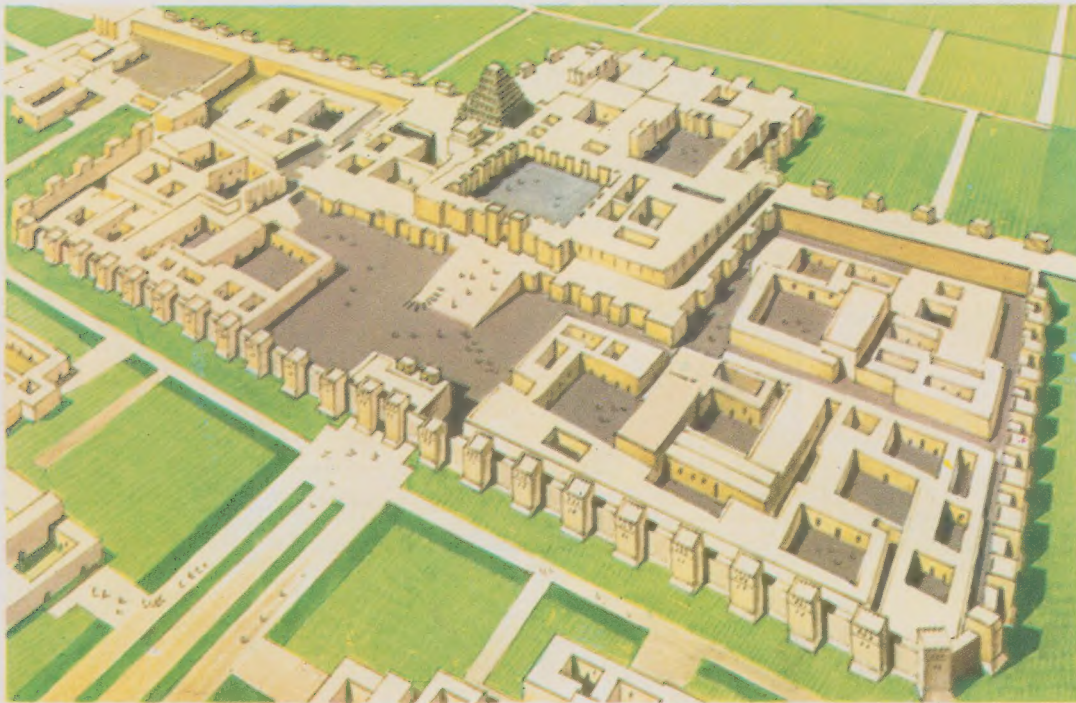
In 1842 he began to excavate a massive mound called Kouyunjik. His results were disappointing, but one day an Arab who had been watching Botta with his workmen told him that in his own village, 14 miles north, people kept finding

carved stones and clay bricks covered with mysterious marks wherever they dug a spade into the ground. Botta sent a few workmen north to the Arab's village; they found a wall lined with carved stone slabs. Botta joined them and they began to excavate. It was not long before, with excitement mounting, they discovered rooms, halls, and corridors – all part of a huge palace.

Botta was thrilled. He believed he had found Nineveh. But in fact what he had uncovered was Dur-Sharrukim, the palace of Sargon II, who had ruled over Assyria from 722 to 705 B C. The palace once stood in a great city with seven gates, and was raised 65 feet above the town on a brick platform covering 25 acres. Botta and his companions explored their discovery in amazement. It had 200 lofty rooms built round courtyards, and the inner walls were faced with two miles of sculptures in relief (carving in which design stands out from the surface), showing kings, gods, and soldiers, fighting and worshipping their god Assur. Enormous winged lions and bulls with human heads guarded the palace portals. Botta had some of the best-



Vases found at Assur



Dur-Sharrukim, the great city built by Sargon II about 12 miles from Nineveh

An Assyrian carving of a winged beast, with the body of a lion and a human head, from Dur-Sharrukim



preserved sculptures sent down the Tigris and on to France, where they can be seen today in the Louvre in Paris.

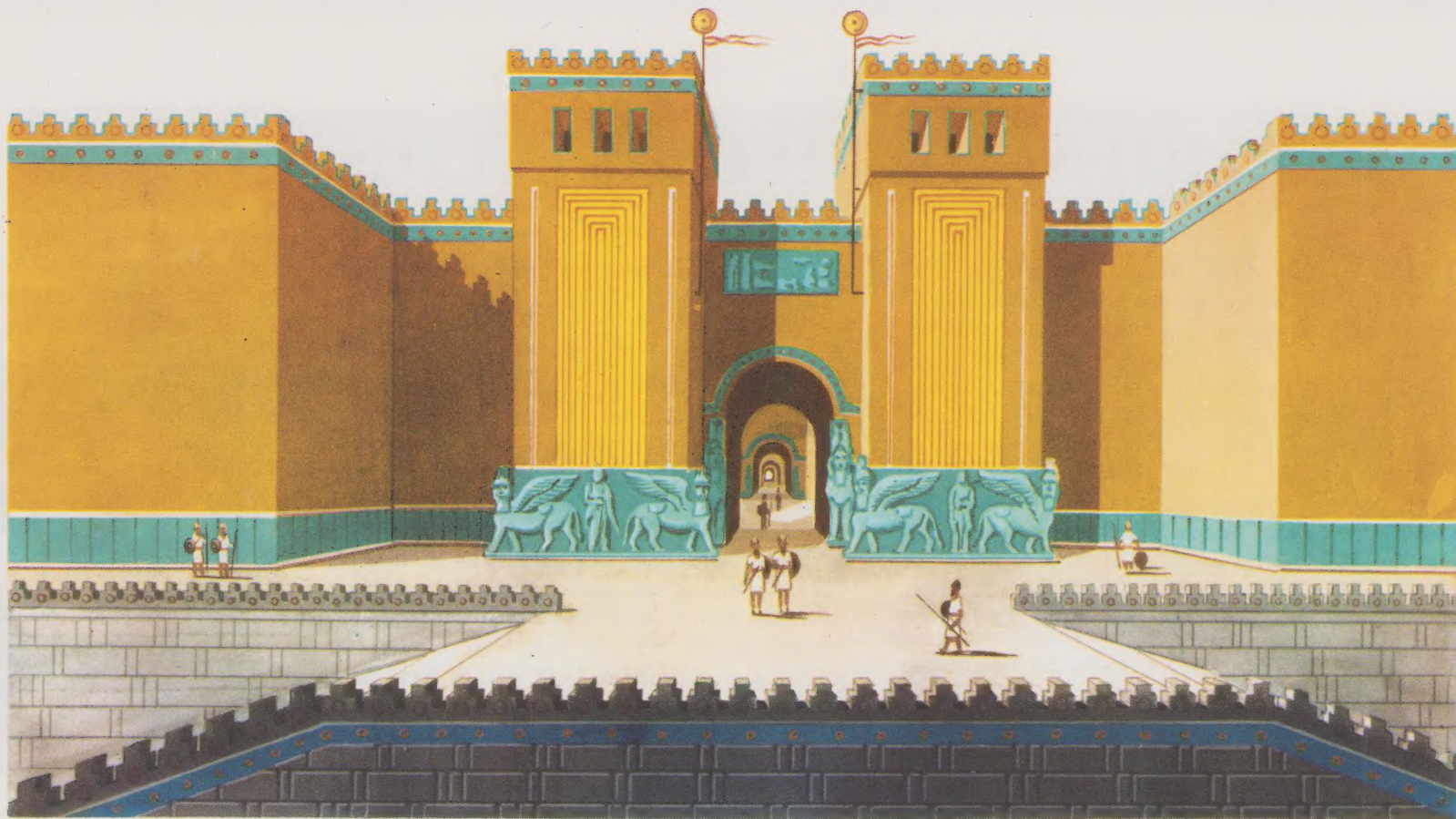
More discoveries

It was during Botta's explorations that a young Englishman, Henry Layard, arrived in Mesopotamia in search of adventure. He was fascinated by the country and decided to explore the other great mounds. Sir Stratford Canning (the British Ambassador to Turkey) helped him raise money to pay the Arab labourers, and in October 1845 his little expedition reached the region of the mounds. It was with great difficulty that he persuaded the Turkish ruler Mohammed Pasha to allow him to explore the mound of Nimroud which he had decided was the most promising site. He engaged local Arabs to work for him, and soon they were unearthing rooms lined with alabaster slabs covered with cuneiform writing, and marvellously carved reliefs of men fighting and hunting lions, riding in chariots, attacking castles with battering rams, and receiving tribute from defeated enemies. Two huge winged animals with human heads, a lion and a bull, guarded the entrance to one of the three royal palaces, built by King Assurnasipal II in 879 B.C. Layard was determined to send these great stone animals back to England, as well as many sculptured slabs. After endless difficulties in getting them across the sands in a cart drawn first by buffaloes and finally by a crowd of Arabs (encouraged by songs, drums, and fifes), they were embarked on two rafts made of 600 blown-up sheepskins for the long journey down the Tigris to Basra on the Persian Gulf. The lion and the bull are now in the British Museum.

Layard left a fascinating record of his pioneer excavations, but he was hampered by the suspicious Pasha at Mosul and by the Arabs' mistrust of foreigners. Nor did the British government give Layard sufficient help or encouragement. But his enthusiasm triumphed over all obstacles, and in the end

Assurbanipal, King of Assyria, rides in triumph through Nineveh. The King stands in his splendid chariot, shaded by a parasol; the women in front of him are captured slaves from Anatolia. Huge marble slabs depicting such scenes have been found in the excavation of Assyrian cities





The entrance to Sargon II's palace at Dur-Sharrukim, guarded by magnificently carved winged beasts like the one shown on the opposite page

his Arab helpers shared his excitements and successes, which were celebrated by colossal feasts with gay music and dancing.

Nineveh at last

After Nimroud, Layard began to dig the mound at Kouyunjik, in 1849, which Botta had abandoned some years earlier. Here at last he found Nineveh, which archaeologists had dreamed of finding for so long. In a month he had uncovered nine rooms of the palace of the great Assyrian king Sennacherib, who made Nineveh his capital at the height of Assyria's power between 705 and 681 B.C. Gradually the mound revealed its treasures, and the finest Assyrian architecture and sculptures were disclosed; there were huge reliefs in coloured marble of battles, fortresses, ships, and bearded warriors, archers, and horsemen pursuing terrified enemies; kings rode in chariots, with parasols held over them, along palm-fringed rivers full of fish; women and children were led away into slavery; lions, transfixed by arrows, leaped at their hunters in agony and rage.

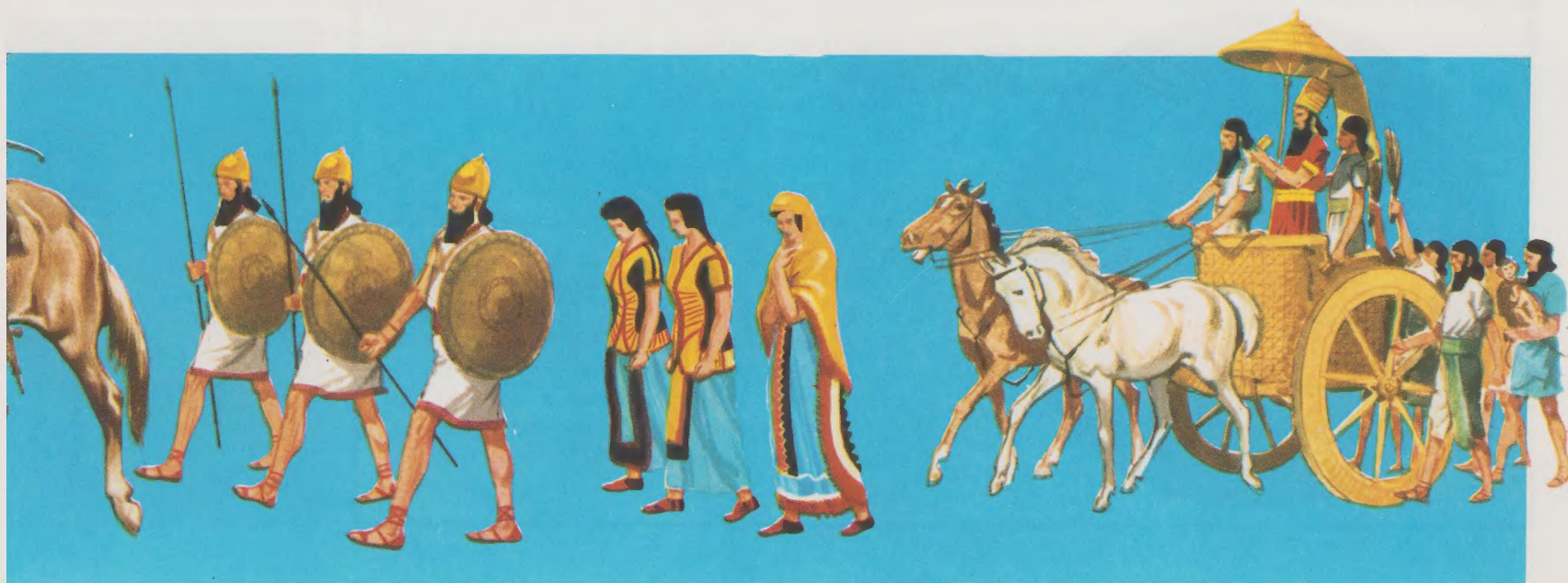
There was more at Nineveh than palace halls and sculptures,

winged lions and bulls. The most interesting discovery of all was the royal library of King Assurbanipal (see page 2192), Sennacherib's grandson. Thousands of clay tablets and cylinders were found, all covered with cuneiform writing. Scholars set to work to find the key to this writing. In 1857 they succeeded – Babylonian and Assyrian could be read.

An earlier capital

Assur, the ancient capital of Assyria before Nineveh, was excavated by the German archaeologists Koldewey and Andrae in 1903. They discovered palaces, temples (including the great temple and ziggurat of Assur, the chief Assyrian god), and many graves containing pottery, jars, and clay tablets.

Assyria was a country which contained quarries of limestone, alabaster, and stone. In architecture and sculpture Assyrians could build and carve works capable of lasting millennia. The Babylonians in their stoneless country could not. Part of the architectural grandeur of ancient Assyria remains intact today, while the sun-dried bricks of Babylon have long since crumbled to dust.



INFECTIOUS DISEASES OF CHILDHOOD

IN the Middle Ages epidemics of plague and smallpox swept the world, killing thousands of people and often scarring those who recovered. Today these terrible diseases have almost disappeared in the western world, and epidemics are usually of comparatively mild (though sometimes very infectious) diseases. The most common are measles, german measles, chicken pox, scarlet fever, mumps, whooping cough, and (though this is now becoming increasingly rare) diphtheria; and the people most usually attacked by them are children. For this reason these illnesses are often collectively known as the infectious diseases of childhood.

How an epidemic spreads

The causes of the infectious diseases of childhood are *microbes*, or germs, a different kind of microbe being responsible for each disease. These microbes live in the tissues of their victims, but during the course of an illness some invariably escape when the victim breathes and float about in the air. As only a few are needed to start a new infection, anyone who approaches an infected person may inhale enough to become infected too. In this new victim the microbes rapidly increase in number, so that after a time, known as the *incubation period*, there are so many that they produce the symptoms of the disease. Again some will escape into the air around the sick person and so pass on the infection to yet more people. In this way an epidemic may grow. To prevent epidemics spreading, people who have been in contact with the victim of an infectious disease should not mix with other people until the incubation period of the disease is passed; in fact, until they are certain they have not

caught it. This time of isolation is known as *quarantine*.

Antibodies

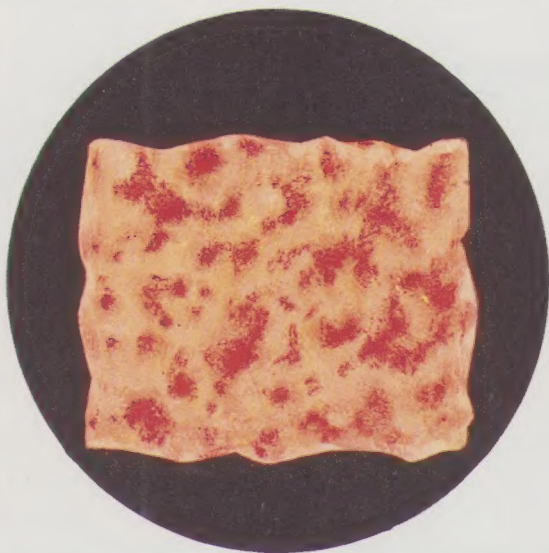
One of the interesting things about the infectious diseases of childhood is that it is unusual for any of them to attack the same person twice. This is because during an attack of any one of these illnesses the victim's tissues make a substance called *antibody*. This antibody is lethal to the invading microbes, and as a little of it stays in the body for the remainder of the victim's life, any microbes of the same sort which try to enter are rapidly killed. This is indeed fortunate, for it means that parents, so long as they have already had all the infectious diseases of childhood, can usually nurse their sick children without fear of becoming infected.

A person who has never had a particular infectious disease, and who therefore has no antibodies to the microbes which cause it, is said to be *susceptible* to that disease. On the other hand, a person who has recovered from a particular disease and who has antibodies to the microbes which cause it is said to be *immune*. Unfortunately the antibody is very *specific*. The antibody formed during an attack of measles, for example, has no power to protect against an attack of any disease other than measles.

In some cases *vaccination* causes the tissues to make antibodies exactly like those made during natural infection. In this way vaccination makes a susceptible person immune, and prevents an infection. In the infectious diseases of childhood vaccination is at present used mainly to prevent the two most serious illnesses, diphtheria and whooping cough.

MEASLES

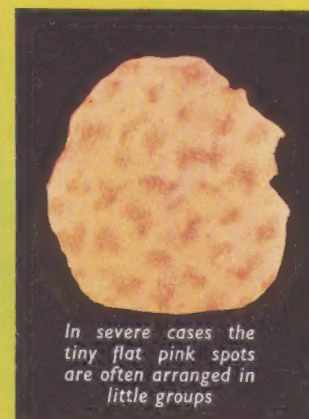
The measles rash is formed by large numbers of small brick-red spots, which collect into small crescent-shaped groups



Measles is by far the most unpleasant of the infectious diseases of childhood which are common in Britain today. It is caused by a minute and highly infectious virus. The incubation period is usually 10 or 11 days, although it may be as long as three weeks. The patient then begins to feel unwell, develops a temperature, and has red eyes and a runny nose. The characteristic rash does not appear until four days later. It is first seen on the face and neck, but it quickly spreads to the chest, back, and arms. During this time the patient usually feels very unwell indeed.

The victims of measles are most infectious during the four days before and the four days after the first appearance of the rash, but a week after the rash has appeared they are free from the virus, and no longer infectious. It is hoped that epidemics of measles may be prevented before long; experimental vaccines have already been made and tested, and should soon be available for everyone.

GERMAN MEASLES



In severe cases the tiny flat pink spots are often arranged in little groups

SCARLET FEVER



Scarlet fever rash consists of minute bright red spots on flushed skin

CHICKEN POX



Three stages of spots: flat macules, vesicles containing fluid, and scabs

GERMAN MEASLES

German measles, like measles, is the result of a virus infection, but it is usually a very mild disease. Its incubation period is about 17 days. There is often no warning illness and the rash is the first obvious sign of infection. It appears on the face and then rapidly spreads to the chest, fading within two days. Another symptom is the swelling of lymph nodes in various parts of the body, and in particular of two little nodes at the back of the head. As this happens quite early in the disease it is sometimes possible to detect an attack several days before the rash appears.

Children who escape german measles do not develop antibodies to the virus. This means that they may catch the infection when they are grown up. For a woman this may be serious, since an attack of german measles during the first three months of pregnancy can affect the unborn baby, which may be born with certain abnormalities. To avoid disasters such as this some doctors advise parents to place their young daughters in contact with the disease, and so make sure that they become immune.

SCARLET FEVER

Until the beginning of this century scarlet fever was a very serious disease, but since then it has become progressively milder. Today it is neither particularly common nor particularly severe, and modern antibiotic drugs are waging an increasingly successful war against scarlet fever bacteria.

The bacteria responsible for scarlet fever are called *haemolytic streptococci*. These microbes spread in droplets in the air, in food and drink, and even on articles such as handkerchiefs, pens, and pencils. Once inside their victims they settle in the throat, where, after an incubation period of two or three days, they cause severe inflammation of the pharynx and tonsils. The throat is sore, there is a high temperature, and the victim feels really very ill.

The rash which appears is due to a *toxin* (poison) made by the bacteria as they grow. This toxin spreads through the body, and its effect on the skin is to dilate the blood vessels, which gives the skin the scarlet coloration from which the disease gets its name.

CHICKEN POX

The first sign of an attack of chicken pox is often the rash. It usually appears on the 16th or 17th day after infection and may vary in severity from as few as five to as many as several hundred spots. When there are large numbers of spots they come out in 'crops', so that spots in various stages of development are present at the same time. Each spot is quite large and when fully formed is a little *vesicle* containing a drop of colourless fluid. By the fourth day a scab forms which later falls off, leaving a barely perceptible, but nonetheless permanent, scar.

The rash of chicken pox is rather like that of the very serious disease, smallpox; so in countries where both diseases occur it is important for doctors to distinguish between the two. One feature of chicken pox is that the rash is usually thickest on the trunk of the body, while the rash of smallpox is usually thickest on the face and hands.

The virus which causes chicken pox in children sometimes infects adults, but apart from giving them chicken pox it can also cause a strange disease called *herpes zoster*, or shingles.

MUMPS

Although the face of a person with mumps may appear comic as it swells up on either side, it is unkind to laugh at the victim, since this can be a painful and unpleasant disease. But this illness, like scarlet fever, is not as severe as it used to be, and quite often the victims of mumps do not even have to stay in bed.

Mumps is caused by a virus which infects the glands, especially the parotid salivary glands just in front of and below the ears, making swallowing painful. The glands begin to swell after an incubation period which is usually 17 to 19 days, but may be as much as 30 days. Sometimes one gland swells first, followed a few days later by the other, but the swellings seldom last for more than four days, and as soon as they go down the patient feels perfectly well again.

Mumps is not a very serious disease for children, but it can cause painful inflammation of other glands in adult people, and can even result in deafness. It is also a tiresome disease because of the long quarantine necessary for anyone who has been in contact with it.

WHOOPING COUGH

Whooping cough (see page 1239) is caused by a bacterium known as the Bordet-Gengou Bacillus, after the two French scientists who discovered it in 1906.

The disease, which has an incubation period of between five and 15 days, is an unpleasant one, marked by uncontrollable bouts of coughing which frequently end in a characteristic whoop as the victim struggles to draw breath. Bouts of coughing may also end in the victim vomiting.

Whooping cough usually attacks children under five years of age, and at one time it was the cause of many deaths. But since the Second World War almost all children in Britain have been vaccinated against whooping cough soon after birth, and although the vaccine does not invariably prevent an attack of the disease, it reduces the risk very considerably, and the few infections which do occur in vaccinated children are usually mild.

Children with whooping cough may remain infectious for as long as five weeks after the beginning of their attack, although for most of this time they need not stay in bed.

DIPHTHERIA

Diphtheria is caused by bacteria which infect the victim's throat; as they grow they produce a toxin, which is responsible for the symptoms of the disease.

Although diphtheria is still quite common in some parts of the world, it is very rare in Britain today. This is the result of several intensive vaccination campaigns by the Ministry of Health and by local health authorities. These campaigns have persuaded almost all parents to have their children vaccinated, and now nearly every child is vaccinated three times: perhaps soon after birth, at five years of age, and yet again at nine years old.

There is little doubt that the widespread use of the very effective diphtheria vaccines which are now available has saved millions of children from a particularly serious and frequently fatal illness. Vaccination against diphtheria is not unpleasant and is usually performed at the same time as vaccination against whooping cough. Today many doctors use a preparation in which the two vaccines are mixed together.

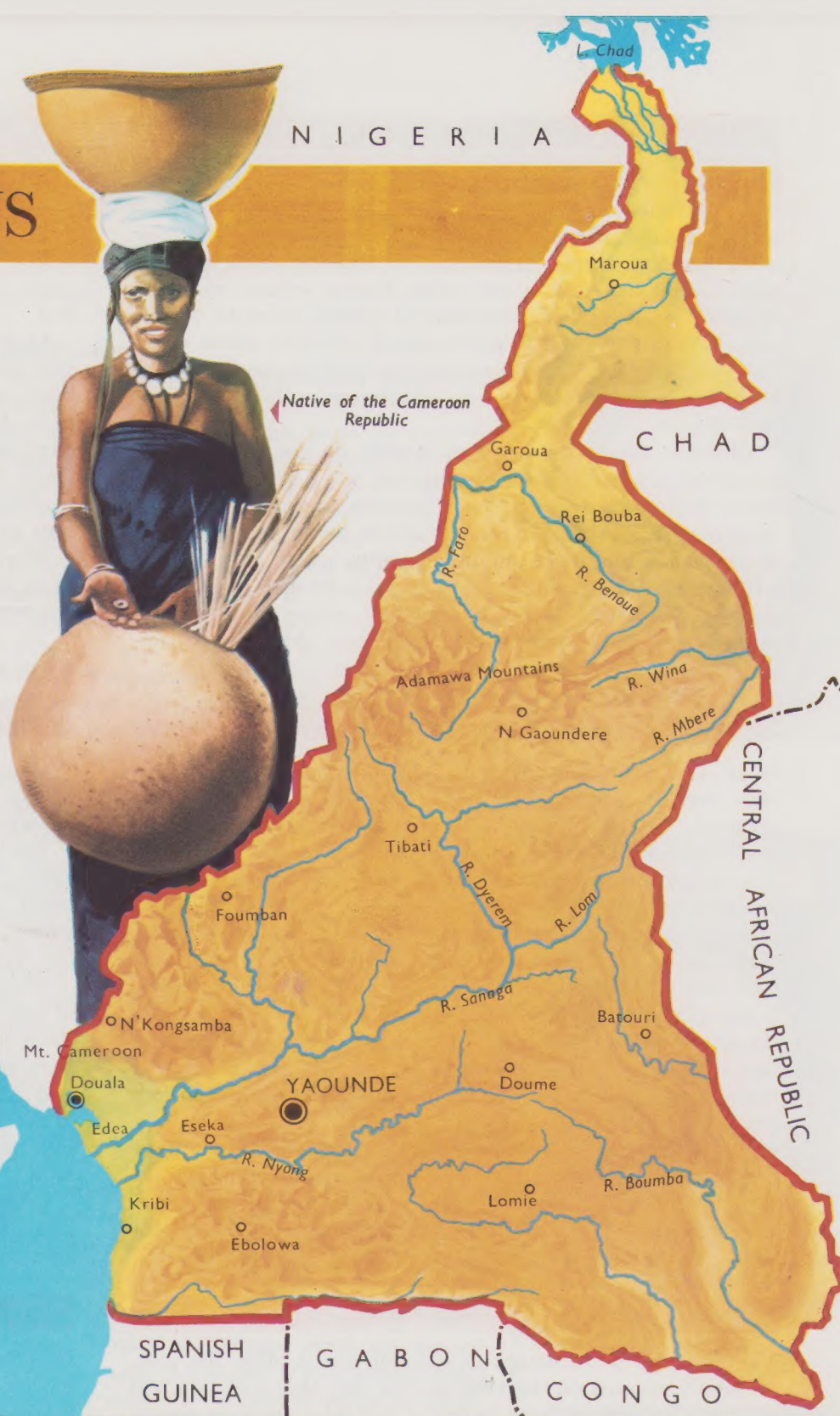
THE CAMEROONS

DIRECTLY under the great western bulge of Africa lies the Republic of Cameroon, a country with one of the most varied climates in the world. Almost continuous rain falls on the south-west slopes of Mount Cameroon on the Atlantic coast. These slopes, with the staggering annual rainfall of 400 inches, are among the wettest places in the world. But in the north, on the fringes of the Sahara desert, the rainfall dwindles to a mere 15 inches a year. Temperatures vary from 75° to 80°F in the south to 90° in the north. There is a dry, sand-laden wind from the Sahara in the early part of the year, but the prevailing wind is from the south and south-west, usually bringing rain.

This great variation in climate is partly due to the triangular shape of the country, which stretches south from Lake Chad to within two degrees of the Equator. The landscape is also varied; the plateau of the south and centre, fringed with forest-covered lowlands in the south and coastal plains in the west, ends in the north in a range of mountains arching north-east from Mount Cameroon, an active volcano 13,350 feet high. To the north of this is the hilly Adamawa region, and still farther north flat plains turn to marsh as they reach the shores of Lake Chad.

As many as 200 different tribes live in the Republic of Cameroon, which is probably the most racially complicated part of Africa. In the north the people speak Sudanic languages, while in the south they speak Bantu; between live tribes speaking 'Bantoid' languages which are related to both the main languages. The original inhabitants of the area were probably the pygmies, who now live in scattered groups in the southern forest; today there are only about 10,000 of these primitive and fascinating people.

The economy of the country is based on agriculture, which varies in the different parts of the country. In the north millet is grown and cattle are herded; in the south-west coffee and bananas are the main crops; while in the south cocoa, the country's most valuable export, is cultivated. A few minerals are found, but not in large enough quantities to bring in much wealth or to affect the lives of many of the people.



Plateau country in the Adamawa

FLORA AND FAUNA

The flora and fauna of the Cameroon Republic follow the varied pattern of the climate and countryside. In the southern lowlands grow rain forest, including giant trees like mahoganies, smaller trees like ebonies, wild kola nuts, orchids and ferns. In swampy areas grow rattans and Raphia



① peanuts ② mango ③ palm olive fruit ④ cocoa bean ⑤ coffee

Discovery and exploitation

The territory was discovered at the end of the 15th century by the Portuguese explorer Fernando Po, who named the largest indentation on the coast *Rio dos Cameroes*, or 'River of Prawns', from which the country has taken its name. During the 17th century European trading stations, known as factories, were established, but with no great success. The Duala coastal tribes would not let the explorers go inland, but instead acted as middlemen between the Europeans and the tribes of the interior – the role of the chiefs in exporting rubber, ivory, and slaves turned a few of them into rich merchant princes, but left the country without a system of communications and prevented the development of the interior.

By the end of the 18th century the region was mainly under the influence of British traders, and in 1835 the King of Bimbia gave the British a great tract of land along the coast. But although during most of the 19th century the Duala chiefs persistently asked Britain to annex the whole country, every request was refused or neglected. Towards the end of the century Germany approached the chiefs, and on 15th July 1884 signed a treaty. Five days later a British consul arrived offering full annexation; six days after that a French gunboat brought a new offer of annexation from France. But both offers were too late, and France and Britain decided to recognise the German claim to the whole territory.

Rule by Germany

The Germans made slow progress in opening up communications with the interior and establishing their administration. Native opposition proved strong in the north, and the German administrators, making a virtue of necessity, let the native rulers retain a good deal of their authority. Even so, German administration proved inefficient and heavy-handed. It took harsh criticism in



Curiously shaped huts built by the natives of the interior

Germany, provoked by native uprisings, to persuade the administration to reform itself and establish law and order.

The main emphasis of the German administration was on the development of trade. Europeans brought cloth, spirits, firearms, and small manufactured items in exchange for rubber, palm oil, and a soon exhausted supply of ivory. Encouragement was given to the clearing of plantations for growing coffee and cocoa, but the real opening up of the country was never achieved – mainly owing to the opposition of native chiefs in the coastal area, and the difficulty of transport in the interior.

Administration by France and Britain

French and British troops occupied the territory in 1916, and after the war they agreed to divide the administration of the country, by far the largest area going to France. This trusteeship was confirmed by the United Nations after the Second World War, but the growth of African nationalism has led to an independent course for both parts. The northern part of the British region voted for union with Nigeria; that in the south joined the French area in 1961 to form the Federal Republic of Cameroon.

FACTS AND FIGURES ABOUT THE CAMEROON REPUBLIC

Surface area: about 200,000 square miles

Population (196): about 4,000,000

Capital: Yaoundé

Type of government: republican

Agricultural products: Cassava, bananas, millet, sorghum, groundnuts, cocoa

Mineral products: silver, gold, titanium, aluminium (all in small amounts)

Biggest port: Douala

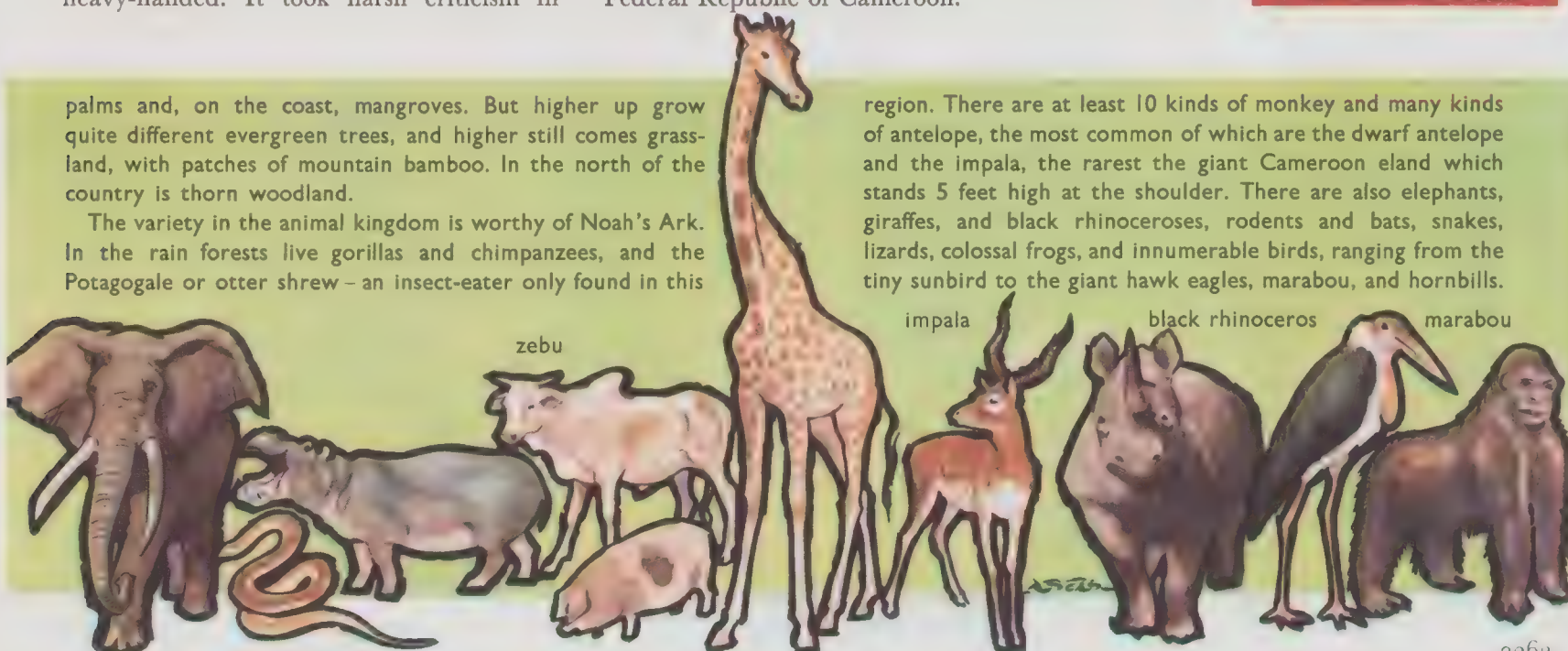
Imports: Beer, wine, wheat, flour, dried fish, sugar, rice

Exports: cocoa, coffee, palm oil, bananas, timber, rubber, groundnuts, cotton

palms and, on the coast, mangroves. But higher up grow quite different evergreen trees, and higher still comes grassland, with patches of mountain bamboo. In the north of the country is thorn woodland.

The variety in the animal kingdom is worthy of Noah's Ark. In the rain forests live gorillas and chimpanzees, and the Potogale or otter shrew – an insect-eater only found in this

region. There are at least 10 kinds of monkey and many kinds of antelope, the most common of which are the dwarf antelope and the impala, the rarest the giant Cameroon eland which stands 5 feet high at the shoulder. There are also elephants, giraffes, and black rhinoceroses, rodents and bats, snakes, lizards, colossal frogs, and innumerable birds, ranging from the tiny sunbird to the giant hawk eagles, marabou, and hornbills.



THE MEXICANS

ABOUT the only generalisation one can make about Mexico is that it is a high country. In fact well over half is more than 3,000 feet above sea level, and several mountains rise higher than 15,000 feet. Apart from this, Mexico is all things; it is dry and wet, hot and cold, rich and poor, backward and progressive, and has a varied population of many different nationalities.

Different cultures have dominated Mexico; evidence of this can be seen throughout the country: in the remains of the ancient, Egyptian-looking buildings of the Toltecs and Aztecs, early inhabitants of Mexico; in their weird, sometimes savage-looking carvings; in the later Spanish baroque churches, still with something of the Aztec intensity about the sculptures; and in the modern buildings of Mexico City, with its streets full of sleek American cars.

Mexico extends from the border of the United States in the north to Guatemala in the south. Most of the people live on the vast, tilted central plateau which rises from a height of 3,000 feet in the north to 8,000 feet in the south. Mexico City, the capital, lies in the southern part of the plateau. On the east, west, and south the plateau is fringed by mountains. The western mountains are high, averaging over 7,000 feet, and are a serious obstacle to communication. Along the southern rim of the plateau are the highest mountains in Mexico.

Many of these mountains are volcanic. This type of geological structure has resulted in frequent earthquakes. In 1957 a large earthquake killed 60 people. There are parts of Mexico where the people take as little notice of a slight earth tremor as we do of a thunderstorm.

CHANGING STANDARDS

The people of Mexico are predominantly of Indian origin. The Spaniards reached Mexico in 1519 but never settled in such numbers as in other Latin-American countries. About a quarter of the population is probably still of pure Indian stock, while under 10 per cent are purely European. The rest, apart from a few Afro-Indians, are of mixed Indo-Spanish blood. Nearly everyone speaks the official language, Spanish, although in the mountainous regions there are isolated groups of people who speak only ancient Indian dialects.

The term Indian is still loosely applied to the poorer classes, whatever their origin. These people live in the countryside rather than the towns. They do little work and many of them are unable to read or write. They go barefoot or wear home-made sandals. They usually sleep on the ground, and dress in the typical loose, flowing, pyjama-type costumes. They live on a diet consisting almost entirely of maize and beans.

Not long ago the majority of Mexicans were like this. Before the Second World

War 80 per cent of the people lived outside the towns, while 60 per cent of these were illiterate. Today the picture is very different. A law of 1944 ordering every literate person to teach one illiterate person to read or write has proved highly successful, and a massive education programme now absorbs one-fifth of Mexican income. Today only 25 per cent of the people are illiterate, and these are almost entirely in the isolated parts of the country away from the populous southern part of the plateau and the coasts. The government hopes that illiteracy will be abolished by 1972. There has also been a 'drift to the towns', coupled with a significant industrial expansion. Today 40 per cent of the people live in towns, while Mexican productivity, both agricultural and industrial, is rising at a rate of 7 per cent annually. But the Mexicans are poor.



A Mexican of mixed Indian and Spanish blood



A Mexican Indian



The average national income is about 3,500 pesos a year – or about £90 sterling.

MEXICAN TOWNS

The larger Mexican towns, like Mexico City, Gondalazara, and Veracruz, contain huge modern office blocks and public buildings which are rising alongside the picturesque remnants of old Mexico. Nearly all the towns are expanding rapidly – Mexico City has trebled its population since 1940. The Mexican birthrate of nearly 50 per thousand is among the highest in the world, and there are now about 35,000,000 people in the country. The standard of living is, of course, higher in the towns than in the countryside, although nowhere is it good by European standards.

(continued bottom right)

The Indian market in a Mexican town. Maize, beans, pineapples, bananas and other fruit and vegetables are laid out on simple stalls

THE UNITED STATES AND MEXICO

There are many United States citizens in Mexico, forming a larger group than any other foreign community. The reason is that many of them have large business interests in the country. But the United States itself exerts little influence over Mexico. The Mexican government maintains its diplomatic relations with Cuba in defiance of the United States, while it also has air routes over Cuba, and shipping lanes through Cuban waters, which are not open to those Latin-American countries who implicitly obey the United States government.

Mexico is a democracy. It has Conservative and Liberal parties, and a president elected by universal suffrage. Today's president is the Liberal Adolfo Lopez Mateos. He was elected in December 1957, and his successor will be elected early in 1964.



In fact, although wages have risen tenfold since 1940, the cost of living has risen almost as much, so that there has been little improvement for the majority of people.

In the remoter parts of Mexico some people live as they have always done. Old Mexico still exists, and people live in houses built of mud and straw, bricks bleached white and dried in the sun. Near the rainy tropics some houses are built of tree-trunks and thatched with palm leaves.

RELIGION

One of the most interesting features of recent Mexican history has been the drive which successive governments have made against the Roman Catholic Church. They have confiscated the land and treasures of the Church, and at one time the public celebration of Mass was forbidden. Despite this the Mexican people are very devout. Their churches are always packed, and saints' days and holy days are piously observed by almost the whole population. Yet some travellers have felt that this piety is only skin deep and that many Mexicans have never really abandoned the worship of the old Aztec and Toltec gods. In the past thousands of human beings were sacrificed to these gods, and you can still see the site of these sacrifices at the Toltec pyramids of Teotihuacan.

M A Z A R I N

JULES MAZARIN was an extremely able but not particularly pleasant man. He guided the affairs of France in the difficult times from the death of Richelieu, through the minority of Louis XIV until his death in 1661, when Louis declared himself to be his own first minister. During this time Mazarin raised the prestige of the monarchy, reduced the power of the nobles, and emerged victorious from the Thirty Years War. Yet his native Italian cunning, his favours to his own family, and his huge private fortune amassed out of public funds earned him enemies in every class of society. He was a very worldly cardinal who served both the state and himself with remarkable devotion.

From Italian to Frenchman

Mazarin was born at Piscina in Italy on 14th July 1602. He was educated at Rome, where he studied law, and then joined the army. He entered the papal service under Urban VIII, was consecrated a priest and made a canon. In 1634 he became papal nuncio (a sort of ambassador) to the court of France. The all-powerful ruler of France, Cardinal Richelieu, invited him to enter the service of France, and in 1639 Mazarin became a naturalised Frenchman. In 1640 he was sent to Savoy and achieved a great diplomatic triumph by establishing Christine, sister of Louis XIII of France, as regent there. As a reward he was created a cardinal, and when Richelieu died in 1642 Mazarin was his obvious successor as chief minister. He became a great favourite of the queen, Anne of Austria, and when Louis XIII died on 14th May 1643, Mazarin ensured that she became regent with full powers, ruling for her five-year-old son, Louis XIV. This meant, of course, that it was Mazarin who ruled with full powers, and from then until his death in 1661 he was as much the uncrowned king of France as Cardinal Richelieu had been before him.

His first job was to win the Thirty Years War which had been raging since 1618. He conducted his diplomacy with extraordinary skill. He made a peace treaty between the Danes and the Swedes, and brought in the Swedes against France's enemies Austria, Spain, and the Austrian-dominated Holy Roman Empire. He detached Bavaria from her alliance with Austria, and under his astute guidance the French armies, under their brilliant commanders Condé and Turenne, gradually broke down the resistance of their rivals. France emerged victorious from the Peace Treaty of Westphalia in 1648. She gained



Mazarin – unpopular but successful

Alsace and her ally Sweden received Pomerania. Mazarin ensured that the Holy Roman Empire was reduced to a mere federation of independent princes, all enjoying religious liberty and entitled to make separate foreign alliances.

Civil war and flight

Yet at the moment of his triumph Mazarin was facing serious difficulties at home. It was in 1648 that the first civil war or *Fronde* broke out, and began five years of spasmodic and occasionally violent fighting. The *Fronde* was a revolt of all classes of society against the French government. The *Parlement* of Paris took the lead and on 27th July 1648 attempted to pass a law giving itself more power at the expense of the central government. In reply Mazarin arrested some of the prominent members of the *Parlement*. Mazarin's corrupt methods, the heavy taxes which he levied, and forced loans which he raised, had upset the common people and they joined forces with the *Parlement*. The great princes, too, were angered at the way Mazarin governed only through middle-class men. He had completely isolated himself and the regent from contact with the ancient

nobility of France. But the alliance of nobles, commoners, and the *Parlement* was not stable, and when the nobles sought to make a separate peace with Spain (with whom France was still at war) the *Parlement* turned against them and made peace with Mazarin and the court. Mazarin did not take advantage of this golden opportunity and soon antagonised the *Parlement* once more. He had promised them certain privileges, but went back on his word. In face of the new union of the princes, led by Condé, and the *Parlement*, Mazarin fled with the royal family to Bruhl in Cologne in 1651. He returned in 1652, but Condé, with the help of Spain, continued the civil war. Mazarin went into another short exile, but the coalition again broke down and the revolt collapsed. In February 1653 Mazarin returned in triumph to Paris.

Condé was now in exile and Mazarin had broken the power of the nobles. But he saw that his previous isolation had been a mistake. On his return he began to build up a court party composed of nobles with no real political power, while the actual work of government was done by such 'middle-class' men as Le Tellier and Colbert. The *Parlement* was ordered not to debate state affairs, and the prestige of the central government and the monarchy soared.

Legacy to France

Mazarin now turned his attention once more to external affairs. Spain had not signed the Treaty of Westphalia and was still at war with France; this time with the aid of the rebellious Prince Condé. In his struggle against Spain Mazarin allied with Oliver Cromwell of England and in 1658 formed the League of the Rhine in Germany to prevent the Emperor coming to the aid of Spain. His diplomacy was as successful as were his commanders in the field. In 1659 Spain acknowledged defeat and signed the Treaty of the Pyrenees. France gained Roussillon, Cerdagne, Artois, and much of Flanders.

When Mazarin died on 9th March 1661 he had completed the work of Henry IV and Richelieu, and destroyed the power of Spain and the Empire. Louis XIV was able to begin his personal rule on the death of Mazarin with no powerful enemies either at home or abroad.



SIBERIA might be called the Soviet Union's back garden; a colossal back garden that stretches from the Urals as far east as the Pacific, and from the Arctic Circle as far south as the Caspian Sea. Until quite recently western Russians took no real interest in this vast area. Its use was as a place to which undesirables could be banished from the centre of Russian life. Few wished to visit this primitive land over which a great silence had hung for millions of years.

Siberia is a land of huge forests, stretching for thousands of miles; a land through which flow the world's mightiest rivers, spreading out before they reach the sea in great desolate marshes. The bear, sable, marten, ermine, reindeer, and the Siberian tiger are found in its northern expanses. Tiny wooden villages and drab towns are lost in this colossal area, which is about 50 times the size of the United Kingdom. For much of the year the northern part is in the grip of a savage and bitterly cold winter.

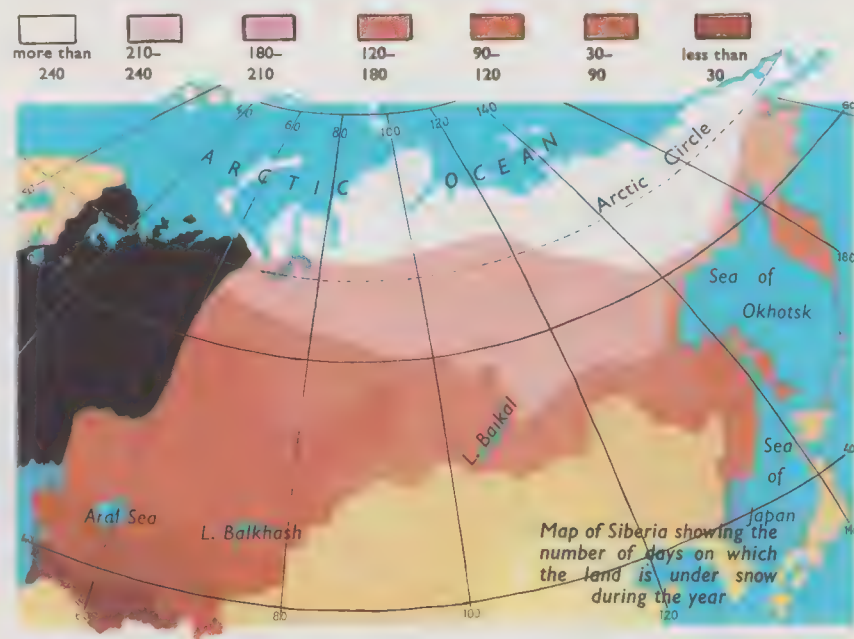
But treasure has been found in this great back garden – treasure which could make the Soviet Union the richest nation in the world. It has been discovered that eastern Siberia alone can satisfy half the Soviet Union's need for hydro-energy, and 80 per cent of its need for coal and timber. One Siberian diamond town, Mirny, virtually satisfies the complete Soviet demand for industrial diamonds. Fantastically rich mineral deposits have been discovered in Siberia, and this wealth of iron ore, tin, mica, natural gas, and oil has yet to be exploited.

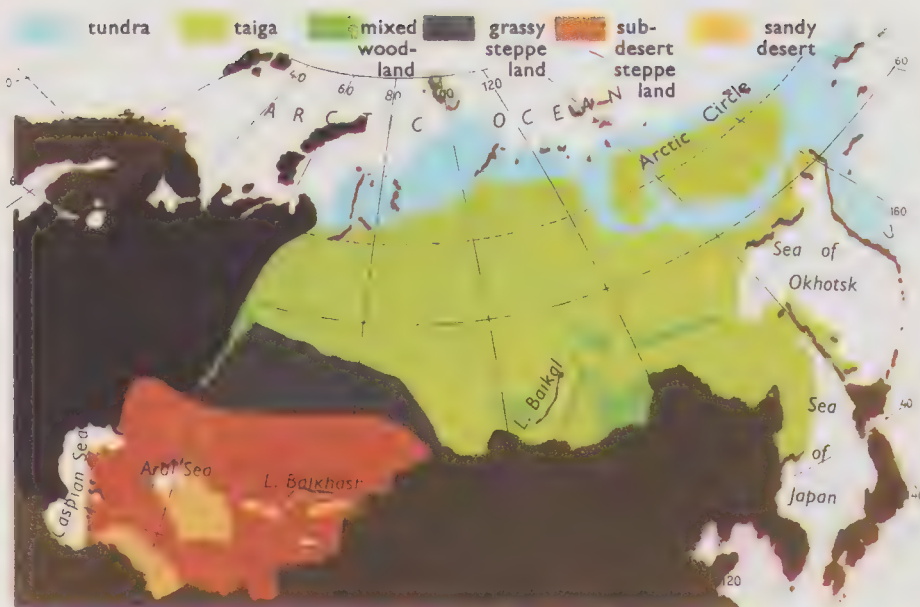
The Soviet Government is fully conscious of this great treasure, and today has launched a full-scale drive to exploit it. Workers' settlements of over 10,000 have sprung up out of the wilderness. Cranes weave over the Siberian towns, helping to build new and better houses, for living conditions are being improved to attract new settlers. Drains, theatres, water supplies, and shops are making life more pleasant in Siberian

S I B E R I A

towns. Yakutsk, in the north-east, has a growing university which this year turned out its first batch of qualified doctors. Irkutsk, in the south, has a flourishing theatre, developed by 14 actors who left Leningrad.

The great movement to open up Siberia is attracting the young and adventurous. One-sixth of the present population are settlers of the first generation. The average age of people in the top Siberian jobs is much lower than in the rest of the Soviet Union. The financial rewards are high. The workers can earn over 400 roubles a month – well over three times the





The vegetation of Siberia

national average. In some of the mica mines, north of Irkutsk, the fantastic sum of 8,000 roubles a month has been earned. Incentives like six months' holiday every three years are being offered to those who go and work in Siberia.

And the results of this drive to the east are already staggering. The most gigantic power stations in the world are being built along the great Siberian rivers. At Bratsk the world's largest multi-purpose timber processing plant is at work. Two Siberian aluminium plants will, when completed, turn out a quarter of the world's aluminium.

Yet Siberia is still an extremely primitive place. In most of the smaller towns only a few of the streets are paved, and the bulk of the population still lives in wooden houses. Apart from the great Trans-Siberian Railway which links the most important Siberian towns, Omsk, Novosibirsk, Irkutsk, and Vladivostok, communications are not good. Most of the roads are made of mud, and the frozen sub-soil makes the construction of modern roads a difficult business. But there is no doubt that Siberia is one of the lands of the future. Now let us look more closely at it.

Geography

Siberia got its name from the old city of Sibir, near Tobolsk. Today it is a geographical rather than a political term, for Siberia is part of the largest and most important Russian republic: the Russian Soviet Federal Socialist Republic, which includes Moscow and Leningrad.

Siberia has an extremely long coastline. It is possible to sail

Reindeer standing in one of the great marshes found at the mouths of the north-flowing Siberian rivers



along the north coast around into the Sea of Okhotsk. But few ships undertake this North-east Passage, as it is called, because it is blocked by ice for much of the year. In fact the entire Siberian coast is at times completely ice-bound.

The northernmost point of Asia is on Siberia's arctic coast: Cape Chelyuskin ($77^{\circ}44' N$).

Siberia has three main physiological divisions: in the west is the great Siberian plain stretching from the Urals to the Yenisei river. Once this plain was covered by sea, but the Caspian and Aral Seas are all that now remain of this vast sea. The other two divisions are the Siberian highlands in the east (once connected to Canada) and the great range of mountains in the south and east.

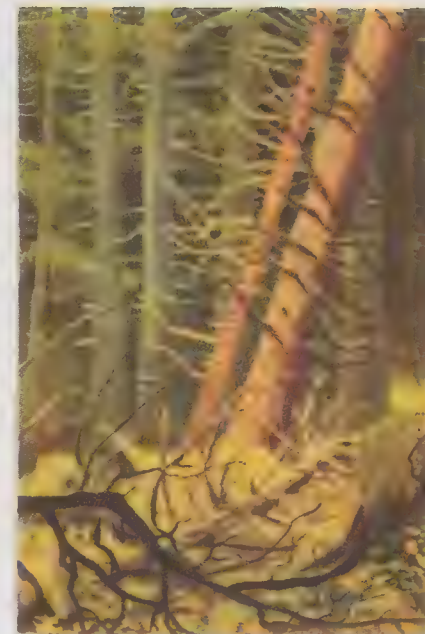
Climate

The climate of Siberia is notorious. Verkhoyansk and Oymyakon in the north-east of Siberia have temperatures which fall to $-90^{\circ}F$ and have a mean temperature of $-60^{\circ}F$ in January. They are the coldest inhabited places in the world. In northern Siberian towns triple-framed windows are needed to keep the cold out. If you put your naked fingers on metal in this climate they will stick to it.

As you can see from the map, snow falls over most of Siberia, and for six months of the year over half the country is under snow. But in the south-west the climate is more temperate. There is a brief but often quite hot summer. Even in the north the temperature can be as high as 60 to $65^{\circ}F$.

Vegetation

The northern part of Siberia is *tundra* in which grow only mosses and lichens. Only the surface of the ground thaws out in the summer, for beneath a layer of earth there is permanently frozen soil. South of the tundra is the great *taiga*, an almost impenetrable combination of marsh and woodland. In fact parts of it have possibly never yet been penetrated by man. In the northern part of the taiga the forest



is mainly coniferous. Further south there are deciduous trees. South-west of this are the steppes, a dry, rolling plain, much of which is intensively cultivated.

Mountains, rivers, and lakes

In the south and east is a great range which includes the Sayan Mountains and the Altai Mountains. They have peaks of up to 15,000 feet. In these mountains rise the great rivers of Siberia, the Ob, Yenisei, and the Lena, which flow into the Arctic. In this area is Lake Baikal, the world's deepest lake, and after the Caspian Sea and the Aral Sea the third largest lake in Europe and Asia. In the north-east, in the Kamchatka Peninsula, there is a volcanic range of mountains, the highest of which rises to 15,912 feet, the highest peak in Russia. To the west are the Ural Mountains; these rarely rise over 6,000 feet.

Towns

The most important towns in Siberia are found along the Trans-Siberian Railway. Recently their size has increased greatly. The largest town in Western Siberia is Novosibirsk, and in Eastern Siberia, Irkutsk. On the Sea of Okhotsk is the great port and naval base of Vladivostok.



A section of the immense forest which stretches over much of Siberia

HISTORY

The Russians first penetrated Siberia in the 13th century when Novgorod traders arrived there. The actual Russian conquest of the territory did not begin till the 16th century. By 1630 the Russians had overcome many of the central Asiatic tribes and penetrated as far as the Lena river. By 1640 they had reached the Pacific. Criminals and political opponents of the government were sent there, sometimes to work in the notorious Siberian salt mines. There was no organised Russian colonisation until the 19th century. In 1928 the Soviet Government made the decision to develop the natural resources of Siberia. The result of this decision can be seen today in Siberia's growing prosperity and population.

FACTS AND FIGURES

The people: Very few of the indigenous people of Siberia remain. Most of its population are either Russian or Ukrainian. 90 per cent live along the Trans-Siberian Railway.

Population: about 29,000,000

Area: about 5,000,000 square miles

Highest mountain: Klyuchevskaya Sopka, 15,912 feet

Longest rivers: Ob, 2,113 miles
Yenisei, 2,364 miles
Lena, 2,648 miles

Extremes of climate:

Verkhoyansk: January -60° to -65°F
July 60° to 65°F

Main towns: Novosibirsk 887,000
Omsk 579,000
Krasnoyarsk 409,000
Irkutsk 365,000
Nizhni Tagil 338,000



A view of the government building and the theatre of Novosibirsk, the largest town in Siberia



Huge dams like this are being built on Siberia's mighty rivers

Habarovsk	322,000
Barnaul	320,000
Magnitogorsk	311,000
Vladivostok	283,000

Main products:

Western Siberia: metals, grain, livestock, and timber.

Eastern Siberia: timber, furs, and gold.

A metallurgical works in Kuznetsk, typical of the growing industrialisation in Siberia



PLANTS IN INDUSTRY (part two)



A sugar refinery. The sugar beet is crushed and the juice separated by centrifuges. It is then concentrated and purified

IN our first article on this subject we described plants from which fibres and vegetable oils are obtained (see page 2246), but there are many other plants which are important in industry.

Some of the products of these plants have been partly replaced by similar products which are of inorganic origin, such as synthetic rubber and dyes. But there are some, like sugar, for which no really satisfactory artificial substitute can be made.

Note: the illustrations in this article are not drawn to a constant scale

RUBBER-PRODUCING PLANTS

Although rubber can now be made synthetically, great quantities are still produced from the milky latex of plants. Almost all the world's supply of natural rubber is obtained from the Para rubber tree.

PARA RUBBER (*Hevea brasiliensis*) is a tree native to Brazil, but in the 19th century it was introduced to Asia and is now grown on a large scale in Malaya and Indonesia. The white liquid latex, from which the rubber is made, is obtained by cutting the bark.

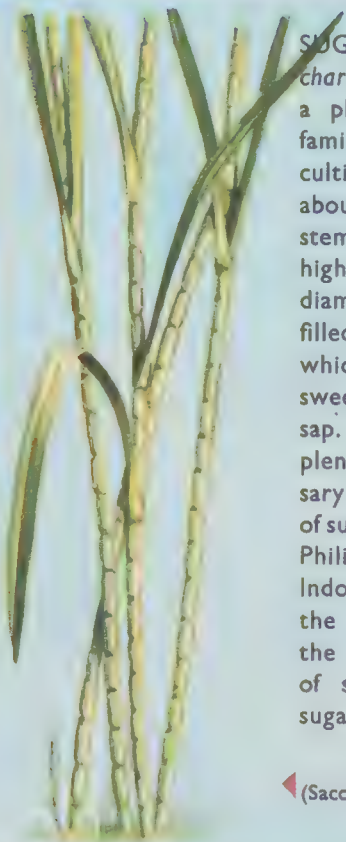
DYE-PRODUCING PLANTS

Vegetable dyes have been largely superseded by synthetic dyes in the last century, but in the first half of the 19th century planting and processing indigo was one of the most prosperous of India's industries. In 1870 a German chemist produced cheap synthetic indigo from coal tar, and the indigo planters were financially ruined.

INDIGO (*Indigofera tinctoria*) is a bush native to India. The leaves contain a colourless liquid which turns deep purplish-blue after being fermented and then aerated.

SUGAR-PRODUCING PLANTS

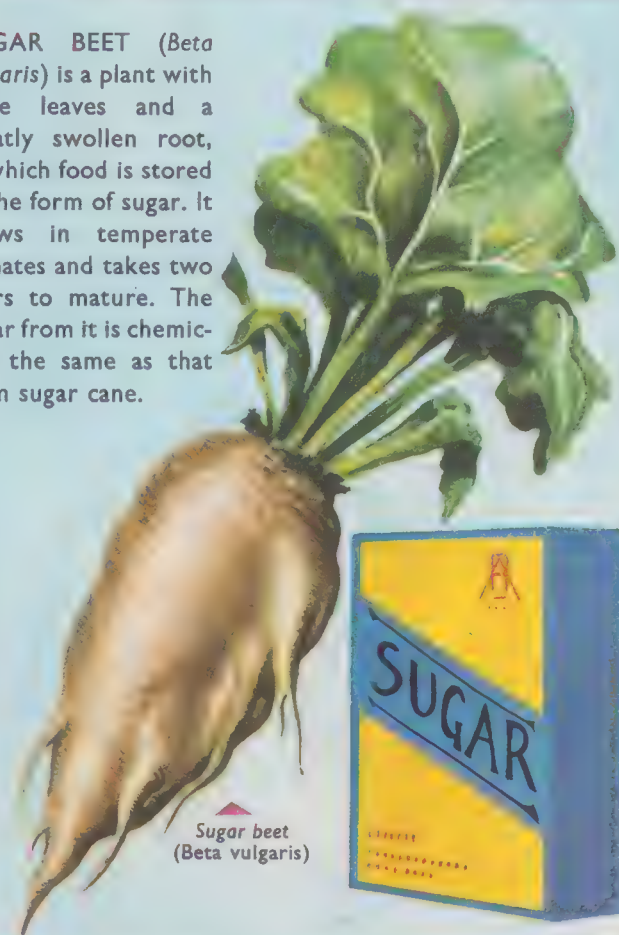
Up till the end of the 18th century crystalline sugar (sucrose) was produced solely from sugar cane. Large-scale cultivation of sugar beet started in Europe early in the 19th century, and it is grown in Europe, Russia, and North America, and widely used in the food industry.



SUGAR CANE (*Saccharum officinarum*) is a plant of the grass family which has been cultivated in India since about 1000 B.C. The stems may be 20 feet high and 2 inches in diameter. They are filled with soft pith, which contains the sweet, sugar-producing sap. A hot climate with plenty of rain is necessary for the cultivation of sugar cane. India, the Philippines, Formosa, Indonesia, Brazil, and the West Indies are the largest producers of sugar made from sugar cane.

◀ Sugar cane
(*Saccharum officinarum*)

SUGAR BEET (*Beta vulgaris*) is a plant with large leaves and a greatly swollen root, in which food is stored in the form of sugar. It grows in temperate climates and takes two years to mature. The sugar from it is chemically the same as that from sugar cane.



▲ Sugar beet
(*Beta vulgaris*)



A flowering branch of Para rubber



Rubber motor tyre (today usually synthetic)

GUTTA-PERCHA (*Palaquium gutta* and *Palaquium oblongifolia*). These trees grow in the forests of Malaya and Indonesia. Incisions are made in the bark and a sticky juice runs out, although in smaller quantity than the latex of Para rubber. Gutta-percha comes mainly from jungles, and is collected from wild trees by the forest-dwelling people. The finished product is hard and inelastic, but softens when it is warmed. It is used for insulating electric cables, making golf-ball covers, and various other purposes.



A flowering branch of the gutta-percha tree



Insulating tape made of gutta-percha and used to cover electric cables



A flowering branch of indigo



Natural indigo is regarded by some people as more beautiful than any synthetic dye, and production of it still continues on a small scale.



A flowering branch of madder



A flask of madder dye

MADDER (*Rubia tinctorum*) produces the red dye called alizarin; its main use today is in manufacturing artists' colours. It grows in many Middle Eastern countries.

LOGWOOD is the heartwood of the tree *Haematoxylon campechianum*. Dye is extracted from it and used to produce a black colour in silk, wool, and other fabrics. It is also used in making inks and in staining microscope specimens. The tree is native to Central America and is also cultivated in Jamaica.



A flowering branch of logwood



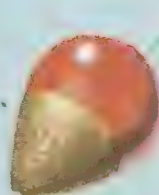
A tin of logwood dye

CORK-PRODUCING PLANTS

The **CORK OAK** (*Quercus suber*) is an evergreen tree native to the western Mediterranean countries. The cork used commercially is the thick, soft bark of the tree, which can be peeled off the trunk and larger branches. It grows again and can be harvested every eight to ten years.



Cork oak (*Quercus suber*)



Angler's float made of cork



A stopper made of cork

PLANTS USED IN TANNING

Tannin or tannic acid is a substance contained in various plants and used in converting skins and hides into leather, which differs from untreated hide in being flexible and very resistant to decay, even when wet. At one time the bark of the oak tree produced almost all the tannin used in industry, but it is now obtained from a number of different plants, including quebracho (*Schinopsis lorentzii*), native to South America, and sumach (*Rhus coriaria*), which is cultivated in southern Europe.

TIMBER

Wood was probably the first vegetable product used by man for things other than food. Today huge quantities of wood are used for a great variety of purposes, the two most important being building and paper-making.

Timber is broadly divided into two classes, softwoods and hardwoods. Softwoods include the coniferous trees – the pines and firs. Softwoods are used for most constructional purposes, as they are easier to work; the timber known as deal is a typical softwood. Hardwoods are the timber of certain deciduous trees such as oak, ash, and beech. Many tropical trees like teak provide hardwoods.

PERFUME

The production of perfume from plants is of great commercial importance. It is chiefly obtained from flowers, such as rose, lavender, violet, and jasmine. In some cases it is the leaves of the plants which yield the perfume, for example, rosemary and sage. Perfumes are extracted by distillation or by embedding certain flowers in grease or wax.

I R A Q : history

IRAQ was once a great centre of civilisation. It was the home of the Sumerian, Assyrian, and Babylonian empires which flourished in Mesopotamia; indeed Iraq is simply the Arab name for this ancient region (see page 2241). But the area was to undergo a tragic change. Successive empires, Persian, Greek, Roman, and Arab, all conquered this fertile land. In the 13th century the Mongols from Kublai Khan's Asian empire reduced the plains of the Euphrates to a barren waste, and destroyed Baghdad, Iraq's capital. The Ottoman Turks, who spread from Asia across the Middle East into Europe in the 16th and 17th centuries, governed Iraq loosely as a backward and unimportant province. It became a land of struggling farmers, tax-collectors, and brigands.

There was little national feeling in Iraq until the outbreak of the First World War. By this time Iraq had become a key country in world politics because, apart from her immense oil reserves, she stood on the overland route to India and the Far East. In the war Turkey sided with Germany, and to gain the support of the Iraqis Britain promised them their independence. With the imminent destruction of the Turkish empire there was an upsurge of nationalism in Iraq.

INDEPENDENCE

The British had never intended to abandon their vital interests in Iraq and after the war back-pedalled on their promises. It was only after many riots and disturbances that in 1922 Feisal was proclaimed King of Iraq. His kingdom was formed out of the Turkish provinces of Mosul, Basra, and Baghdad.

Yet Iraq was not fully independent. A series of treaties in the 1920's guaranteed British interests while Iraq was under a British mandate (a kind of supervision). The new country did not have an easy time. The Mosul district in Northern Iraq proved difficult to control, and lawless Kurds carried out ceaseless armed raids and insurrections. Nevertheless by 1932 many of Iraq's problems were nearing solution, and in that year she was permitted to become a member of the League of Nations. The monarchy was strongly pro-British, and the death of Feisal in 1933 and the accession of King Ghazi made no difference to Anglo-Iraq friendship. But the accession of the



A mosque in Baghdad, the capital – once Baghdad was the cultural capital of the world

infant Feisal II in 1939 enabled the Prime Minister, Rashid Ali, to turn against the British and depose the regent, Abdul Ilah (the king's uncle), in 1941. His regime lasted less than a year, and for the rest of the war Iraq was pro-British. But by the end of it a growing body of opinion had come to regard the monarchy as simply a tool of Western imperialism and was demanding its overthrow.

Two important elements now entered into this dangerous situation. One was the cold-war conflict between Russia and the West which made Iraq a key point in East-West antagonism. The other was 'arabism' – the growing demand in many Middle Eastern Arab countries for political union.

In 1952 the whole Arab world was electrified when King Farouk of Egypt was deposed. Two years later the 'arabist' Colonel Nasser took over. Nasser at once began friendly relations with the Soviet Union which horrified the West. Arabism now had a leader, and the Middle East was torn between those who supported his ideals and those who remained loyal to Western ties.

OUT OF THE FRYING PAN

In 1955 Iraq signed a defence pact with non-Arab Turkey which was clearly intended as a safeguard against Communist encroachments. Britain supported the treaty which became the basis of the pro-Western Baghdad Pact. Nasser tried to persuade Iraq to denounce the Pact. Tension reached boiling point. Anti-British 'incidents', of which the Suez crisis was but one, multiplied throughout the Middle East, and within Iraq hatred of Britain grew. This situation could not last.

On 14th July 1958 a sudden bloody coup d'état removed the monarchy and shook the whole world with its brutality. The young 22-year-old Feisal, the Crown Prince Ilahi, and almost the entire royal family were murdered in a brief two-hour blood-bath. The hated Prime Minister Nuri es-Said fled in his pyjamas from the palace and hid under a motor car before he was dragged out and slaughtered. The ruthless, efficient revolt had been accomplished by a group of army officers led by Abdul Kareem el Kassim, and he became the new president of Iraq. By this time the Communists had tired of the neutral Nasser and looked more and more to the increasingly pro-Communist Kassim. Opposition to Kassim grew, and he was badly wounded in an assassination attempt. Meanwhile the revolutionary Baath party was making enormous headway with a movement against him. On 8th February 1963 the reckoning came. The Baath supporters in the army revolted, and Kassim was assassinated. In his place was installed the 'arabist' Field Marshal Abdul Arif.

The new regime is diplomatically neutral but violently opposed to the Communists in Iraq who are now being ruthlessly hunted down and punished for their misdeeds under Kassim. It can only be hoped that the present regime will at last bring peace to this troubled land.



The geographical position of Iraq

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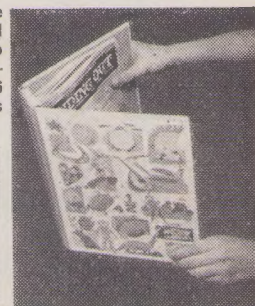
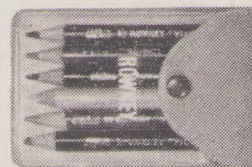
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This week's issue contains the index for Volume 3 - this goes on the last string of your Volume 3 standard binder, or fourteenth rod of your Volumes 3 and 4 Easibinder.

BRAIN ? BOX

1. If BOOTS and SHOES make 100,478, what is HOSE in figures? (T is greater than E and zero is not used to represent a letter.)

2. Dick was telling his mother about the night expedition he and his friend had been on.

'We got absolutely lost, Mother. It was too dark to see the stars, we lost our compass, and we could not tell where we were from our maps. Then we came across a farm and we were able to get our direction again.'

'Surely you didn't knock the farmer up in the middle of the night?' said Dick's mother.

'No, we just looked at one of his barley fields and we knew which

way to go.'

How did Dick know?

3. Flouts; low lake; pale deed; relay; send; slink; torso. These are all anagrams of the main word in the name of the home-ground of seven clubs in the Football and Scottish Leagues. Can you work them out, complete them, and give the names of the clubs?

ANSWERS

1. Either 8,241 or 2,741.
2. Dick knew that the cars of barley lean mainly towards the north-east. This was a rough guide to Dick as to which direction he should take.
3. Loftus (Road, Queen's Park Rangers); Oakwell (Barnsley); Deepdale (Preston North End); Layer (Road, Colchester United); Dens (Park, Dundee); Links (Park, Monroese); Roots (Hall, Southend United).

Clues Across

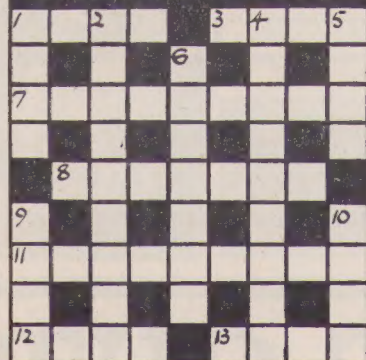
1. Play with gestures but no spoken words (4).
3. The tide does when it goes out (4).
7. Flags or decorations flowing in the wind (9).
8. A bannock (7).
11. This is the position when neither player can make a further move at chess (9).
12. Hastened (4).
13. Remain (4).

Clues Down

1. Light fog (4).
2. Orange preserve (9).
4. The meal for 2 down (9).
5. Scarf worn diagonally or round waist (4).
6. He walks with a purpose (7).
9. The Thames through Oxford (4).
10. Declare something untrue (4).

Solution next week.

HIGH-SPEED CROSSWORD



SOLUTION TO LAST WEEK'S CROSSWORD

ACROSS: 5, Newcastle; 7, Esk; 8, Its; 10, Pun; 11, Hoe; 12, Tug; 13, Row; 15, Thy; 16, Sea; 18, Seventeen.

DOWN: 1, Beethoven; 2, Ice; 3, Ask; 4, Slaughter; 6, Asp; 9, Sow; 10, Put; 14, Den; 16, Set; 17, Ate.

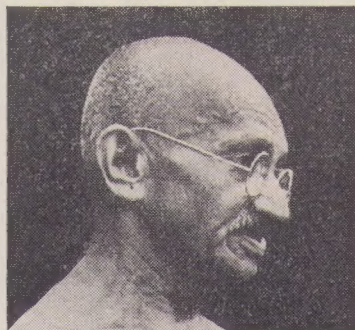
OVERSEAS RESULTS - FAMOUS FACES COMPETITION

THE Famous Faces competition was set in 'Knowledge News' Nos. 111, 59 and 6. Several hundred overseas readers entered, and a very high proportion of the entries qualified for a prize by correctly identifying our gallery of eight famous faces. Prizes were finally awarded to those entries which gave the best and most concise reasons for the choice of a ninth person who deserved a place in the gallery.

THE FAMOUS FACES

1. Joseph Stalin
2. Florence Nightingale
3. Sir Winston Churchill
4. Charlie Chaplin
5. Marilyn Monroe
6. Christine Truman
7. Queen Victoria
8. W. G. Grace

Mahatma Gandhi



'Gandhi was perhaps one of the greatest men of this, the 20th century. He was a dedicated pacifist and lived a simple life according to his beliefs. He wanted India to be respected in world affairs and to be an independent country.'

First Prize: Leonie Miller, age 12.

William Shakespeare



'Shakespeare has enriched world literature and drama more than any other writer. With his great knowledge of men and women and his wonderful gift of words, he wrote the greatest dramas and the most beautiful poetry of all time.'

Second Prize: David Brown, age 15.

Dag Hammarskjöld



'I suggest Dag Hammarskjöld, a just, unbiased man who was Secretary-General of the United Nations from 1953 until he met his death in an air-crash over Africa in 1961. Deeply mourned, he was awarded the Nobel Peace Prize.'

Second Prize: Geoffrey Everingham, age 13.

A 12-year-old Australian, Leonie Miller, of 61 Miller Street, Carnegie S.E.9, Victoria, has won the first prize - the Macdonald library of English Classics - for her choice of Mahatma Gandhi as Famous Face No. 9.

Two sets of the Macdonald Illustrated Library have been awarded as second prize to David Brown (age 15) of 17 Violet Street, Essendon, Victoria, Australia (who chose William Shakespeare) and to Geoffrey Everingham (age 13) of 154 Water Road, Walmer, Port Elizabeth, South Africa (who chose Dag Hammarskjöld).

These three winning entries are illustrated on this page.

Ten third prizes of *The Story of Prehistoric Animals* were awarded for the following entries:

'Doctor David Livingstone was a great explorer and missionary, who brought Christianity to Central Africa and also exposed the horrors of the slave trade. He discovered the Victoria Falls, the course of the Zambesi, and Lake Nyasa.'

Pamela McIntyre (age 12), 917 7th Street East, Gwelo, S. Rhodesia.

'Marie and Pierre Curie discovered radium which they extracted from uranium salts. Marie is also famous for being the only person ever to receive two Nobel Prizes. She died in 1934, the victim of long exposure to radium.'

Matthias Müller (age 12), Rutweg 24, Bonn, Kessenich, West Germany.

'I select Charles Darwin. This British scientist put forth a new line of thought, embodying the theory of evolution. His contemporaries questioned his theories, a few supported them, but others, led by the Church, criticised them.'

Thomas Szabo (age 16), 28 Piccadilly Arcade, Sydney, N.S.W., Australia.

'Leonardo da Vinci was an Italian of many talents who lived from 1452 to 1519. He was famed as a painter, botanist, naturalist, sculptor, engineer, inventor, architect and philosopher.'

Graeme Pow (age 12), Blackwood, Great Eastern Highway, East Guildford, West Australia.

'Pope John XXIII was the first pontiff who tried to unite the Catholics and the Protestants. He worked hard for world peace which won him the admiration of everyone, even Mr Krushchev.'

Navsar Surti (age 16), 37 Sarojini Devi Road, Secunderabad-3, Andhra Pradesh, India.

'I choose Sir Edmund Hillary, for his ascent of Everest with Sir John Hunt's party, for his survey work in Antarctica with Sir Vivian Fuchs, and for his current welfare work among the Sherpas of the Himalayas.'

Lorna Bartlett (age 15), 25 Annandale Avenue, Palmerston North, New Zealand.

'Franklin D. Roosevelt was a great American statesman. He was elected President in 1933 and re-elected in 1936, 1940 and 1944. Roosevelt's main peace-time policy was the New Deal, a programme of public works to deal with unemployment.'

Ada De Franceschi (age 15), 3 Kingsmead, Union Avenue, Salisbury, S. Rhodesia.

'Lord Baden-Powell (1857-1941). A famous and brave British soldier and the world's Chief Scout. He founded the Scout movement in 1908.'

Mohamed Akram (age 10), P.O. Box 554, Nairobi, Kenya.

'Miss Valentina Tereshkova, a 26-year-old Russian, was the first spacewoman in orbit. The former textile worker and parachutist was launched into orbit in the spacecraft Vostok 6 on 16th June, 1963, and made 49 orbits.'

Khoo Boo Yeang (age 15), 19 David Chen Gardens, Penang, Malaya.

'Ernest Rutherford was born in 1871 in New Zealand and devoted his life to establishing the science of radio-activity. He was the first to split the atom and gained all the honours a man of science can attain.'

Paul Moxon, 62 Ihaka Street, Palmerston North, New Zealand.

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support their struggle against the West, but the Russians themselves began to interfere in Arab affairs, and the movement turned against them as well.

Egypt, like much of the Middle East, was once very much under British influence. Arab feeling against the West came to its height when, on 26th July 1956, President Nasser announced that the International Suez Canal Company, whose shares were owned by Britain and France, had ceased to exist and that from then on Egypt would own the canal. In Egypt President Nasser was regarded as a hero, and every day British-owned ships and industries were attacked by rioting Egyptian mobs. The British and French prepared for action. On 29th October Israel, probably with the connivance of Britain and France, invaded Egypt. Britain and France at once demanded that Nasser surrender the canal, and when he refused sent troops themselves with the object of invading Egypt and taking Port Said. But before this action could prove effective world opinion forced Britain and France to withdraw, but not before Egypt had suffered considerable damage and loss of life. Anti-Western xenophobia

in Egypt became even more intense. Cyprus. Cyprus is a classic example of a clash between nationalism and imperialism. In 1914 it was annexed by Britain, and shortly after this there began a movement in Cyprus for union (Enosis) with Greece. This was encouraged by the Greeks, who incorrectly accused the British of 'keeping the descendants of Socrates as slaves'. Britain resisted demands for self-determination in Cyprus. In 1956, after the loss of Suez, she needed Cyprus for strategic reasons. The extremist organisation EOKA (Ethniki Organosis Kypriakou Agonos), or National Organisation of the Cypriot Struggle, led by Colonel Grivas, began a reign of terror. Xenophobia against the British reached its height when the Cypriot leader, Archbishop Makarios, was imprisoned by the British. In 1959 Cyprus became an independent republic inside the Commonwealth.

Algeria. Ever since the French occupied Algeria in 1830 there have been Muslims who longed to see the last of them. The Algerians are of a different race (Arab) and of a different religion (Muslim) from the French. Quite naturally they wanted in-



An Arab boy in the smouldering ruins of his home in Port Said, 1956, after the Suez crisis

dependence, but there were factors which prevented the French giving it to them. The large French population in Algeria had to be protected, and France was also interested in the vast oil resources of the Algerian Sahara, which it also wanted to use for nuclear testing. The resistance to Arab demands by the French, together

Budapest in ruins after the failure of the 1956 uprising against the Russians



with the growing nationalism fostered by the Algerian FLN extremist organisation, caused xenophobia among the Arabs. They decided that they had had enough of foreign rule and from then on wanted Algerians to govern Algeria. It became obvious to President de Gaulle of France that Algeria would have to be given its independence, and this was granted in 1962.

Racialism

Nazis. No man has caused so much xenophobia in recent years as Adolf Hitler, the German dictator. His theory of a master race (people of the Germanic stock) with a right and a duty to rule others had two results: first, Europe was plunged into a catastrophic war in which the Nazis sought to dominate it. Secondly, there was a persecution of people who were not fortunate enough to be members of the master race. At least 5,000,000 Jews were killed by the Nazis so that the Germanic stock should be kept pure. The German Nazis basically resented all non-Germans.



A police officer dealing with a negress during race riots in Alabama, USA, May 1963, over the admission of coloured people to university

When told that millions of Russians would starve under Nazi occupation, the Reich Marshal, Goering, said: 'Perhaps it is as well, for there are some nations which have to be wiped out entirely.'

The colour bar. There is no natural hatred between white and coloured people. It exists only where the political, economic, and social interests of the two groups clash. But much anti-coloured feeling has been caused by the white people's fear of a rise in the status and privileges of coloured people. In the Southern States of the United States anti-coloured feeling only really began after the American Civil War, when negroes were granted new privileges. Today a large proportion of the white population in America, especially the fanatical secret organisation the Ku-Klux-Klan, is still trying to segregate (keep apart) white from coloured people. A similar problem is also troubling South Africa, where many negroes are campaigning against the white policy of *apartheid* (separate development).

Colonel Grivas, leader of EOKA, victorious after four years' struggle

NATIONAL EXPANSION

The root of xenophobia lies in the division between those belonging to a state and those who are 'outsiders'. The doctrine of hostility to foreigners was carried to extremes by the German Hegel. He taught that a person's sole duty was to the state, and that the state's duty was to vanquish its rivals. Each person had a duty of sacrifice to his state, and this duty was only completely performed when the state was at war. Thus the very function of a state was intended to be hostility to its neighbours. Xenophobia, Hegel thought, should be the basis of a properly organised state. Carried to its extreme conclusions, this doctrine meant that the worst fate a state could suffer was to fail to dominate its rivals. This led Hitler in his desire for world domination to declare that if his nation were to fail he would 'drag Europe down in flames' with him. It also led Japanese statesmen to advocate that if they failed to beat China in the 1937 war it would be better to declare war on Russia and the United States and perish completely and 'gloriously'. So love of one's country, while praiseworthy within limits, can, when carried to excess, result in the most destructive of anti-foreign attitudes.